

In the claims:

**1. (currently amended):** An aqueous ink composition for the ink-jet printing method, which ink-comprises

- a) metallic or non-metallic, inorganic platelet-shaped particles having an average particle diameter of at least 2  $\mu\text{m}$ ,
- b) a dispersant (dispersing agent) and
- c) a binder

**2. (original):** An aqueous ink composition according to claim 1, wherein the platelet-shaped particles are aluminium flakes.

**3. (currently amended):** An aqueous ink composition according to claim 1, wherein the platelet-shaped particles are aluminium flakes coated with  $\text{SiO}_z$  wherein  $0.95 \leq z \leq 2.0$ , ~~especially  $1.1 \leq y \leq 2.0$ , more especially  $1.4 \leq y \leq 2.0$ .~~

**4. (original):** An aqueous ink composition according to claim 1, wherein the platelet-shaped particles are pigments that comprise

- (a1) a core consisting of a substantially transparent or metallicity reflecting material and
  - (a2) at least one coating substantially consisting of one or more silicon oxides ( $\text{SiO}_x$  layer)
- wherein the average molar ratio of oxygen to silicon is from 0.03 to  $< 0.95$ .

**5. (currently amended):** An aqueous ink composition according to claim 4, wherein the pigment has the following layer structure:

- (a3)  $\text{SiO}_z$ , ~~especially  $\text{SiO}_{2.7}$~~
- (a2) at least one coating substantially consisting of one or more silicon oxides wherein the average molar ratio of oxygen to silicon is from 0.03 to  $< 0.95$ ,
- (a1) a core consisting of a substantially transparent or metallicity reflecting material, ~~and~~
- (a2) at least one coating substantially consisting of one or more silicon oxides wherein the average molar ratio of oxygen to silicon is from 0.03 to  $< 0.95$ ,
- (a3)  $\text{SiO}_z$ , ~~especially  $\text{SiO}_{2.7}$~~

or

- (a4) a coating consisting of any desired solid material the composition of which is different from that of the coating (a3),

(a3)  $\text{SiO}_z$ , ~~especially  $\text{SiO}_{2.7}$~~

(a2) at least one coating substantially consisting of one or more silicon oxides wherein the average molar ratio of oxygen to silicon is from 0.03 to  $< 0.95$ ,

(a1) a core consisting of a substantially transparent or metallically reflecting material, ~~and~~

(a2) at least one coating substantially consisting of one or more silicon oxides wherein the average molar ratio of oxygen to silicon is from 0.03 to  $< 0.95$ ,

(a3)  $\text{SiO}_z$ , ~~especially  $\text{SiO}_{2.7}$~~

(a4) a coating consisting of any desired solid material the composition of which is different from that of the coating (a3).

**6. (currently amended):** An aqueous ink composition according to claim 5, wherein the gloss-pigment has the following layer structure:  $\text{SiO}_x/\text{SiO}_z/\text{SiO}_x$ ,  $\text{SiO}_z/\text{SiO}_x/\text{SiO}_z/\text{SiO}_x/\text{SiO}_z$ , ~~especially  $\text{SiO}_2/\text{SiO}_x/\text{SiO}_2/\text{SiO}_x/\text{SiO}_{2.7}$ ,  $\text{SiO}_x/\text{Al}/\text{SiO}_x$ ,  $\text{SiO}_z/\text{SiO}_x/\text{Al}/\text{SiO}_x/\text{SiO}_z$ , especially  $\text{SiO}_2/\text{SiO}_x/\text{Al}/\text{SiO}_x/\text{SiO}_{2.7}$ ,  $\text{TiO}_2/\text{SiO}_z/\text{SiO}_x/\text{SiO}_z/\text{SiO}_x/\text{SiO}_z/\text{TiO}_2$ , especially  $\text{TiO}_2/\text{SiO}_2/\text{SiO}_x/\text{SiO}_2/\text{SiO}_x/\text{SiO}_2/\text{TiO}_2$  or  $\text{TiO}_2/\text{SiO}_z/\text{SiO}_x/\text{Al}/\text{SiO}_x/\text{SiO}_z/\text{TiO}_2$ , especially  $\text{TiO}_2/\text{SiO}_2/\text{SiO}_x/\text{Al}/\text{SiO}_x/\text{SiO}_2/\text{TiO}_2$~~ , wherein  $0.03 \leq x < 0.95$  and  $0.95 \leq z \leq 2.0$ , ~~especially  $1.40 \leq z \leq 2.0$ .~~

**7. (currently amended):** An aqueous ink composition according to claim 1, wherein the platelet-shaped particles are gloss pigments comprising

(a) a core substantially consisting of one or more silicon oxides ( $\text{SiO}_x$  layer) wherein the average molar ratio of oxygen to silicon is from 0.03 to  $< 0.95$ ,

(b) optionally, an  $\text{SiO}_z$  layer, wherein  $0.95 \leq z \leq 2.0$ , ~~especially  $1.1 \leq y \leq 2.0$ , more especially  $1.4 \leq y \leq 2.0$ , especially an  $\text{SiO}_2$  layer,~~

(c) optionally, a layer  $D^M$  having a transparency of from 50 to 100% and a complex refractive index  $\tilde{N} = n + ik$  satisfying the condition  $\sqrt{n^2 + k^2} \geq 1.5$  at the wavelength of maximum visible reflection of the particles, which is substantially composed of carbon, an organic compound, inorganic or organic pigments or colorants, a metal, metal oxides or sulfides, a dielectric or a mixture thereof, and which is either on top of the core or, if an  $\text{SiO}_z$  layer is present, is separated from the core by the  $\text{SiO}_z$  layer.

**8. (currently amended):** An aqueous ink composition according to claim 7, wherein the gloss pigment has the following layer structure:

(b2)  $\text{SiO}_z$  layer, ~~especially  $\text{SiO}_2$  layer,~~

- (b1)  $\text{SiO}_x$  core wherein  $0.03 \leq x < 0.95$ ,
- (b2)  $\text{SiO}_z$  layer, ~~especially  $\text{SiO}_2$  layer,~~ or
- (b3) layer  $\text{D}^{\text{M}}$ , ~~especially  $\text{TiO}_2$ ,~~
- (b2)  $\text{SiO}_z$  layer, ~~especially  $\text{SiO}_2$  layer,~~
- (b1)  $\text{SiO}_x$  core wherein  $0.03 \leq x < 0.95$ ,
- (b2)  $\text{SiO}_z$  layer, ~~especially  $\text{SiO}_2$  layer,~~
- (b3) layer  $\text{D}^{\text{M}}$ , ~~especially  $\text{TiO}_2$ ,~~

**9. (currently amended):** An aqueous ink composition according to claim 8, wherein the materials for the layer  $\text{D}^{\text{M}}$  are selected from metals, ~~such as~~ selected from the group consisting of Ag, Al, Au, Cu, Co, Cr, Fe, Ge, Mo, Nb, Ni, Si, Ti, V, and alloys thereof, inorganic pigments, ~~or~~ organic pigments, ~~or~~ other colorants, graphite and ~~compounds similar to graphite,~~ metal oxides or sulfides, ~~such as~~ selected from the group consisting of  $\text{MoS}_2$ ,  $\text{TiO}_2$ ,  $\text{ZrO}_2$ ,  $\text{SiO}$ ,  $\text{SnO}_2$ ,  $\text{GeO}_2$ ,  $\text{ZnO}$ ,  $\text{Al}_2\text{O}_3$ ,  $\text{V}_2\text{O}_5$ ,  $\text{Fe}_2\text{O}_3$ ,  $\text{Cr}_2\text{O}_3$ ,  $\text{PbTiO}_3$  or and  $\text{CuO}$ , ~~and mixtures thereof.~~

**10. (currently amended):** A process for printing a planar substrate according to the ink-jet printing method, which comprises printing the substrate with an aqueous ink composition according to ~~any~~ one of claim ~~[[s]]~~ 1, ~~to 9.~~

**11. (currently amended):** A platelet-shaped aluminum particle comprising:

an aluminum layer having a top surface, a bottom surface, and at least one side surface, and having a thickness of 30 nm to 60 nm, ~~especially 30 to 50 nm;~~

and

a  $\text{SiO}_z$  layer with  $0.95 \leq z \leq 2.0$  on each of the top and bottom surfaces but not on the at least one side surface, having a thickness of 15 to 80 nm, ~~especially 10 to 25 nm~~

**12. (new):** A process for producing  $\text{SiO}_z$ -coated ( $0.95 \leq z \leq 2.0$ ) aluminum flakes which comprises the following steps:

- a) vapor-deposition of a separating agent onto a (movable) carrier to produce a separating-agent layer,
- b) vapor-deposition of an  $\text{SiO}_y$  layer ( $0.95 \leq y \leq 1.80$ ) onto the separating-agent layer,
- c) vapor-deposition of an aluminum layer onto the  $\text{SiO}_y$  layer obtained in step b),
- d) vapor-deposition of an  $\text{SiO}_y$  layer ( $0.95 \leq y \leq 1.80$ ) onto the aluminum layer obtained in

step c),

e) dissolution of the separating-agent layer in a solvent,

f) separation of the  $\text{SiO}_y$ -coated aluminum flakes from the solvent and

g) passing air or another oxygen containing gas for several hours through the  $\text{SiO}_y$ -coated aluminum flakes in the form of loose material or in a fluidized bed at a temperature of more than  $200^\circ\text{C}$ .

**13. (new):** A process according to claim 12, wherein  $1.1 \leq y \leq 1.50$  for the  $\text{SiO}_y$  layer of step d).

**14. (new):**  $\text{SiO}_z$ -coated ( $0.95 \leq z \leq 2.0$ ) aluminum flakes obtained by the process according to claim 12.

**15. (new):**  $\text{SiO}_z$ -coated ( $0.95 \leq z \leq 2.0$ ) aluminum flakes obtained by the process according to claim 13.

**16. (new):** An aqueous ink composition according to claim 1, wherein the platelet-shaped particles are aluminium flakes coated with  $\text{SiO}_z$  wherein  $1.1 \leq z \leq 2.0$ .

**17. (new):** An aqueous ink composition according to claim 5, wherein the pigment has the following layer structure: especially  $\text{SiO}_2/\text{SiO}_x/\text{SiO}_z/\text{SiO}_x/\text{SiO}_2$ , especially  $\text{SiO}_2/\text{SiO}_x/\text{Al}/\text{SiO}_x/\text{SiO}_2$ , especially  $\text{TiO}_2/\text{SiO}_2/\text{SiO}_x/\text{SiO}_z/\text{SiO}_x/\text{SiO}_2/\text{TiO}_2$  or especially  $\text{TiO}_2/\text{SiO}_2/\text{SiO}_x/\text{Al}/\text{SiO}_x/\text{SiO}_2/\text{TiO}_2$ , wherein  $0.03 \leq x < 0.95$  and  $0.95 \leq z \leq 2.0$ .

**18. (new):** An aqueous ink composition according to claim 1, wherein the platelet-shaped particles are gloss pigments comprising

(a) a core substantially consisting of one or more silicon oxides ( $\text{SiO}_x$  layer) wherein the average molar ratio of oxygen to silicon is from 0.03 to  $< 0.95$  and

(b) an  $\text{SiO}_z$  layer, wherein, especially  $1.1 \leq y \leq 2.0$ .

**19. (new):** An aqueous ink composition according to claim 7, wherein the gloss pigment has the following layer structure:

(b2)  $\text{SiO}_2$  layer,

(b1)  $\text{SiO}_x$  core wherein  $0.03 \leq x < 0.95$ ,

(b2) SiO<sub>2</sub> layer,  
or  
(b3) layer D<sup>M</sup> composed of TiO<sub>2</sub>,  
(b2) SiO<sub>2</sub> layer,  
(b1) SiO<sub>x</sub> core wherein  $0.03 \leq x < 0.95$ ,  
(b2) SiO<sub>2</sub> layer,  
(b3) layer D<sup>M</sup> composed of TiO<sub>2</sub>.

**20. (new):** A platelet-shaped aluminum particle according to claim 11, wherein the aluminum layer has a thickness 30 to 50 nm, and the SiO<sub>2</sub> has a thickness 10 to 25 nm.